

IN THE CLAIMS

1. (original): A method of forming an organic electronic device, which method comprises the steps of:
 - a) forming a negative image of a desired pattern on a substrate or layer of the device with a lift-off ink;
 - b) coating a first device layer to be patterned on top of the negative image;
 - c) coating one or more further device layers to be patterned on top of the first device layer to be patterned; and
 - d) removing the lift-off ink and unwanted portions of the device layers above it, thereby leaving the desired pattern of device layers.
2. (original): A method of forming an organic electronic device as claimed in claim 1 wherein the lift-off ink is insoluble in the liquid medium used to deposit the device layers to be patterned.
3. (original): A method of forming an organic electronic device as claimed in claim 1 or 2 wherein the ink comprises a liquid medium which does not dissolve the substrate or layer on which the ink is printed.
4. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the lift-off ink is deposited on the substrate or layer by a direct printing technique selected from the following: ink-jet printing, screen printing, microcontact printing, stamping, soft lithography or electrophotographic printing using a solid or liquid toner.
5. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the deposited lift-off ink is thicker than the device layers subsequently deposited onto it.
6. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the lift-off pattern is from 1 μm to 50 μm .
7. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the ink is deposited by screen printing and the ink has a viscosity from 500 and 10,000 cP.

8. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 1 to 6~~ claim 1 wherein the ink is deposited by ink-jet printing and the ink viscosity is in the range from 3 to 40 cP.
9. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the ink has a surface tension in the range of 20 – 60 dynes/cm.
10. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the surface tension of the ink relative to the substrate is in the range 40-80deg.
11. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the lift-off ink contains from 50% to 99.8% liquid medium, by weight.
12. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the lift-off ink further comprises a colorant, a polymeric binder or one or more functional additives.
13. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the lift-off ink further comprises a cross-linking agent to permit cross-linking of the printed ink.
14. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein partial shrinkage or micro-cracks are induced to allow a lift-off medium to penetrate the ink at the pattern edges or through its surface to aid the lift-off step (d).
15. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein wetting of the ink is effected by a surface treatment of the substrate.
16. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding~~ claim 1 wherein the device layers to be patterned are each independently applied by solution-, spin-, spray-, dip-, web-, die- or evaporation coating.

17. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 1 to 15~~ claim 1 wherein the device layer to be patterned is applied by electroless deposition, ink-jet printing, screen printing, microcontact printing, stamping or soft lithography.

18. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding claim 1~~ wherein the thickness of each device layer or multiplicity of layers is from 1nm to 1 μ m.

19. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding claim 1~~ wherein the lift-off step (d) includes dissolving the lift-off ink using a lift-off liquid medium.

20. (original): A method of forming an organic electronic device as claimed in claim 19 wherein the lift-off liquid medium dissolves little or none of the device layer to be patterned.

21. (original): A method of forming an organic electronic device as claimed in claim 19 or 20 wherein the lift-off step (d) further includes ultrasonic agitation, stirring, spraying liquid medium and/or heating.

22,. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding claim 1~~ wherein the device is an OFET and the device layers are each independently selected from a conductor, a dopant, an insulator or an organic semiconductor (OSC).

23. (original): A method of forming an organic electronic device as claimed in claim 22 wherein the device layers include a conductor that is deposited by liquid coating.

24. (original): A method of forming an organic electronic device as claimed in claim 23 wherein the conductor is selected from the group comprising polyaniline, polypyrrole, PEDOT, doped conjugated polymer, or dispersions or pastes of graphite or particles of metal including Au, Ag, Cu, Al, Ni or their mixtures.

25. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 22-24~~ claim 1 wherein the device layers include an OSC, which is deposited from solution.

26. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 22-25~~ claim 22 wherein the device layers include an OSC comprising a polymer or oligomer including monomers of triarylamine, fluorene, or thiophene, including substituted forms thereof.
27. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 22-26~~ claim 22 wherein the device layers include an OSC comprising pentacene or solution coated precursor pentacene.
28. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 22-27~~ claim 22 wherein the device is a vertical OFET.
29. (currently amended): A method of forming an organic electronic device as claimed in ~~any one preceding claim 1~~ wherein the step d) forms one or more via openings.
30. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 1 to 21~~ claim 1 wherein the device is an OLED and at least one of the device layers to be patterned is selected from an anode, a cathode or an electroluminescent layer.
31. (original): A method of forming an organic electronic device as claimed in claim 30 wherein the electroluminescent layer comprises a substantially organic or organometallic electroluminescent material.
32. (original): A method of forming an organic electronic device as claimed in claim 31 wherein the electroluminescent layer comprises a polymer or oligomer containing monomers of thiophene, phenylene, thiophenevinylene, phenylenevinylene, or fluorene, including substituted forms thereof.
33. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 1 to 21 and 30 to 32~~ claim 1 wherein the device is an OLED and at least one of the device layers to be patterned is selected from a hole injecting layer, hole transporting layer, electron injecting layer, electron transporting layer or interconnect.

34. (currently amended): A method of forming an organic electronic device as claimed in ~~any one of claims 1 to 21 and 30 to 33~~ claim 1 wherein the device is an OLED and at least one of the device layers to be patterned is a dopant or an insulator.

35. (currently amended): An organic electronic device obtainable by ~~any one of the preceding claims~~ claim 1.